

17881

ABSTRACT OF THE DISCLOSURE

GPS-BASED TRAFFIC CONTROL PREEMPTION SYSTEM

A traffic control preemption system uses data received from a global positioning system (GPS) to determine whether a vehicle issuing a preemption request is within an allowed approach of an intersection. GPS signals are received and processed by the vehicle module to generate vehicle data, including the vehicle's position, heading and velocity. The vehicle data is transmitted via radio transmission or some other medium. Each intersection has an associated intersection module which, if within range of the vehicle's transmitting equipment, compares the received vehicle data with a preprogrammed map of allowed approaches to the intersection. If the vehicle data sufficiently matches the map of allowed approaches, the vehicle's preemption request is forwarded to the intersection controller to appropriately control the phase of the traffic signal at the intersection.